

What is claimed is:

1. A document processing apparatus comprising:

a determination unit that determines at least some of a plurality of colors contained in input document data as a
5 determined color group;

a retrieval unit that determines a set of confusion colors of the colors contained in the determined color group based on confusion color information defined in association with color blindness of a human being in a predetermined color component
10 space; and

a processor that performs a predetermined process for portions of the colors contained in the confusion color set determined by the retrieval unit in the input document data.

2. The document processing apparatus according to
15 claim 1, wherein the retrieval unit determines some of the plurality of colors as a confusion color set when some of the plurality of colors in the determined color group are contained in a predetermined range defined in the proximity of one attention confusion color locus in a confusion color locus group
20 defined so as to contain confusion colors in color blindness in the color component space.

3. The document processing apparatus according to claim 1, wherein the retrieval unit defines a nearby confusion area provided based on the color vision characteristics of a
25 human being or the characteristics of an output medium in the

predetermined color component space for each of the colors contained in the determined color group; and the retrieval unit determines the plurality of colors contained in the nearby confusion area as a confusion color set when one attention
5 confusion color locus in a confusion color locus group defined so as to contain confusion colors in color blindness in the color component space passes through the inside of the defined nearby confusion area.

4. The document processing apparatus according to
10 claim 1, wherein the retrieval unit defines a nearby confusion area provided based on the color vision characteristics of a human being or the characteristics of an output medium in the predetermined color component space for each of the colors contained in the determined color group; and the retrieval unit
15 determines the plurality of colors contained in the nearby confusion area and colors in a predetermined area in the proximity of the attention confusion color locus as a confusion color set when one attention confusion color locus in a confusion color locus group defined so as to contain confusion colors in
20 color blindness in the color component space passes through the inside of the defined nearby confusion area.

5. The document processing apparatus according to claim 1, wherein the retrieval unit determines which of blocks previously defined in the predetermined color component space
25 for each of the colors contained in the determined color group

belongs to; and the retrieval unit determines a confusion color set of the colors contained in the determined color group based on block-to-block confusion color information associating blocks confused with each other in color blindness in association with color blindness of a human being and information of the block to which each of the colors contained in the determined color group belongs.

6. The document processing apparatus according to claim 1, wherein the color component space contains the lightness component of each of the colors contained in the determined color group; and the retrieval unit removes the attention color from the set when attention color contained in one of the determined sets and another color contained in the set differ in lightness on the color vision characteristics of a human being.

7. The document processing apparatus according to claim 1, wherein the color component space contains the lightness component of each of the colors contained in the determined color group; and the retrieval unit does not determine whether or not the colors different in lightness on the color vision characteristics of a human being are confused with each other.

8. A document processing method using a computer to process color contained in a document, comprising:

determining at least some of a plurality of colors contained in input document data as a determined color group;

determining a set of confusion colors of the colors

contained in the determined color group based on confusion color information defined in association with color blindness of a human being in a predetermined color component space; and

performing a predetermined process for portions of the
5 colors contained in the determined confusion color set in the input document data.